

10 CFR 50.54(q) Guidance

NEI 50.54(q) Task Force

December 2004

This document is meant to provide a review process, and implementation guidance to be used by the licensee, to determine whether a proposed activity that has an impact ~~on~~ change to the emergency plan (including the emergency action levels) (1) constitutes a decrease in effectiveness (DIE) of the plan and/or (2) results in the plan, as changed, no longer meeting either the planning standards of 10 CFR 50.47(b) or the requirements of Appendix E to 10 CFR Part 50. (Note 1) When the licensee's evaluation under 10 CFR 50.54(q) determines that the proposed activity will not decrease the effectiveness of the plan, and that the plan, as changed, continues to meet the planning standards of 10 CFR 50.47(b) and requirements of Appendix E, prior NRC approval is not required.



NUCLEAR ENERGY INSTITUTE

10 CFR 50.54(q) Guidance
NEI 50.54 (q) Task Force
November 2004

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1. INTRODUCTION:

This document is meant to provide a review process, and implementation guidance to be used by the licensee, to determine whether a proposed activity ~~that has an impact~~ change to the emergency plan (including the emergency action levels) (1) constitutes a decrease in effectiveness (DIE) of the plan and/or (2) results in the plan, as changed, no longer meeting either the planning standards of 10 CFR 50.47(b) or the requirements of Appendix E to 10 CFR Part 50. (Note 1) When the licensee's evaluation under 10 CFR 50.54(q) determines that the proposed activity will not decrease the effectiveness of the plan, and that the plan, as changed, continues to meet the planning standards of 10 CFR 50.47(b) and requirements of Appendix E, prior NRC approval is not required.

NRC may subsequently review the revised emergency plan. Licensees may be requested to make available, either through the inspection process or in accordance with 10 CFR 50.4(b)(5) ("*Written Communications, Emergency Plan and related submittals*") the supporting documentation and evaluations for plan changes whenever questions arise regarding a decrease in effectiveness. This guidance provides a method for documenting evaluations. However, no matter what mechanism is used when a subsequent review takes place, it is ultimately the authority of NRC to determine compliance with regulations. (Note 2)

This process also provides guidance for the review and evaluation of activities that result in emergency plan changes that must be submitted for approval prior to implementation. In accordance with 10 CFR 50.54(q), licensees may make changes, which decrease the effectiveness of the emergency plan, but must submit these to the Commission for approval prior to implementing the changes. (Note 3)

Note 1 – It is acceptable to relocate emergency plan information to lower tier documents (such as emergency plan procedures) if the evaluation guidance contained in this document is then applied to that information incorporated into those lower tier documents (i.e., once that information is included in lower tier documents, it must be treated like "plan" and changes reviewed for decrease in effectiveness).

Note 2 – Nothing contained in this guidance is intended to invalidate prior actions or submittals.

Note 3 – A key point in the discussion of DIE is that "prior commission approval" is meant to be from the Commission, and is not to be misconstrued by obtaining a "review" from the NRC Region or at Headquarters staff.

2. BACKGROUND

- a) Some interpretation issues and inconsistencies regarding implementation of 10 CFR 50.54(q) by both the licensees and NRC have occurred in the past. Historically, various regulatory and industry documents (e.g., EPPOS 4, proposed rulemakings and responses, draft white paper from 1998) have been prepared in an attempt to clarify the language in 10 CFR 50.54(q) such that licensees "*may make changes to these plans without Commission approval only if the changes do not decrease the effectiveness of the plans and the plans, as changed, continue to meet the standards of paragraph 50.47(b) and the requirements of Appendix E to this part.*"

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- b) In late 2003, NEI formed a task force to review and evaluate everything done to date regarding 10 CFR 50.54q issues/challenges. NEI's goal is to formulate guidance for the licensee's use. This guidance document also provides guidance to clarify implementation of the rule in determining the acceptability of changes made pursuant to 10 CFR 50.54 (q). While fairly effective at controlling changes, 10 CFR 50.54(q) is often viewed as being somewhat ambiguous, and inconsistently interpreted and applied. ~~In addition, consistent application of the regulation,~~ regulation in turn, will alleviate potential ambiguities and will reduce unnecessary regulatory burden.
- c) In July 2003, the NRC published for comment a proposed rule (Emergency Planning and Preparedness for Production and Utilization Facilities (68 Fed. Reg. 43673, July 24, 2003) that would correct prior NRC approval protocol regarding EALs since there is an inconsistency between 10 CFR 50.54(q) and Appendix E. The proposed rule recognizes that NRC review and approval of every EAL change prior to implementation is not necessary to provide reasonable assurance that EALs will continue to provide an acceptable level of safety. By requiring prior NRC review and approval in the two situations described in the proposed rule (EAL changes that potentially decrease the effectiveness of the emergency plan and changing from one EAL scheme to another) adequate regulatory oversight of the licensee's emergency classification system will be ensured. The NRC will continue to review through the inspection process the licensee's determinations as to which EAL changes represent potential decreases in the effectiveness of the Emergency Plan. The industry concurs that these changes will provide a means for licensees to modify their EALs without undo regulatory burden.
- d) It is the intent of this guidance to reduce or eliminate inconsistencies and ambiguities with respect to the implementation of 10 CFR 50.54(q). Use of this guidance should allow a licensee to add to, delete from, or modify the ~~current~~ emergency plan, without NRC prior approval, provided that the 10 CFR 50.54(q) evaluation clearly demonstrates that there is no reduction in effectiveness of the plan and that the result of the proposed change will ~~provide required~~ protection continue to meet the 10 CFR 50.47 planning standards and the requirements of Appendix E to 10 CFR 50.
- e) It is expected that licensees will use sound judgment through a documented process for determinations regarding 10 CFR 50.54(q) changes and implement such changes in accordance with regulations. With the use of clarifications provided in this guidance, licensees will be able to methodically implement changes made pursuant to 10 CFR 50.54(q) without prior NRC approval, where appropriate, while maintaining an emergency plan that continues to meet the standards and requirements set forth in 50.47(b) and Appendix E. Use of this guidance ~~will~~ may result in fewer unwarranted change requests submitted to the regulator for pre-approval resulting in more timely responses to licensees submitting appropriate changes for review and approval.
- f) Based on the review performed by the NEI taskforce, the following conclusions were made regarding key issues for implementing procedures and emergency action levels:
- Changes to Procedures Which Implement the Emergency Plan
- The 10 CFR 50.54(q) process refers to changes that may be made to the emergency plan, *not to procedures*, which implement the plan. However, licensees may have relocated certain plan information to lower tier documents, such as implementing or administrative procedures, to facilitate more timely and resource efficient updates. In this situation, 10 CFR 50.54(q) applies to ~~future~~

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proposed changes to certain plan information relocated to these lower tier documents, ~~when they include relocated plan information.~~ Location of relocated information should be administratively controlled to ensure changes to those documents are reviewed in accordance with 10 CFR 50.54(q).

- Clarification of Guidance Regarding Changes to Emergency Action Levels

If a proposed activity results in a change to the EALs, then the licensee under 10 CFR 50.54(q) will determine if there is a decrease in effectiveness of the plan and if it continues to meet the standards in 10 CFR 50.47(b) and Appendix E to 10 CFR Part 50. If the results of the evaluation conclude that there is no DIE, no change to the classification scheme, and the standards are met, then the licensees may make the changes to EALs without NRC approval. [This will be effective upon finalization of the proposed rule published July 24, 2003.]

- g) Guidance on acceptable methods for meeting the requirements of 10 CFR 50.54(q), 10 CFR 50.47(b), and Appendix E is contained in Regulatory Guide 1.101 which endorses NUREG-0654/FEMA-REP-1, NUMARC/NESP-007, and NEI 99-01. Guidance for implementation of NEI 99-01 is provided in RIS 2003-18. The licensee should review EALs and changes there to with State and local governmental authorities on an annual basis and document those reviews. The licensee shall discuss, obtain, and document agreement on EAL classification scheme changes with State and local governmental authorities prior to implementing the change. NRC approval shall be obtained for EAL changes that involve scheme or incorporate a unique methodology, i.e., outside the guidance provided in NURG-0654/FEMA-REP-1, NUMARC/NESP-007, or NEI 99-01.

3. 10 CFR 50.54 (q) Regulation

The standards of 10 CFR 50.47(b) and requirements of 10 CFR 50 Appendix E are summarized in Attachment 1 (steps 2 and 3) to support performing the 10 CFR 50.54(q) evaluation process related to a licensee's emergency plan. Provided below are the requirements of 10 CFR 50.54(q).

- 10 CFR 50.54(q)

A licensee authorized to possess and operate a nuclear power reactor shall follow and maintain in effect emergency plans that meet the standards in 10 CFR 50.47(b) and the requirements in appendix E of this part. The licensee shall retain the emergency plan and each change that decreases the effectiveness of the plan as a record until the Commission terminates the license for the nuclear power reactor. The nuclear power reactor licensee may make changes to these plans without Commission approval only if the changes do not decrease the effectiveness of the plans and the plans, as changed, continue to meet the standards of 10 CFR 50.47(b) and the requirements of appendix E to this part. This nuclear power reactor licensee shall retain a record of each change to the emergency plan made without prior Commission approval for a period of three years from the date of the change. Proposed changes that decrease the effectiveness of the approved emergency plans may not be implemented without application to and approval by the Commission. The licensee shall submit, as specified in 10 CFR 50.4, a report of each proposed change for approval. If a change is made without approval, the licensee shall submit, as specified in 10 CFR 50.4, a report of each change within 30 days after the change is made.

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4. DEFINITIONS AND APPLICABILITY OF TERMS

Implementation of the 10 CFR 50.54(q) process is dependent upon the proper use of key terms. The following definitions explain key terms necessary to complete an evaluation that meets the intent of 10 CFR 50.54(q). These key definitions were put together using guidance associated with the 10 CFR 50.47(b), Appendix E of 10 CFR Part 50, EPOS #4, proposed Rev 1, and SDP 0609 App B, and NEI 99-04.

- **ActivityChange:** A series of events or actions that may result in a change to the emergency plan, or regulatory~~ory~~ required emergency plan information that has been relocated in lower tier documents.

DISCUSSION:

1. An activity-change to the emergency plan sets in motion the need to perform a determine impact on certain licensing bases documents using regulatory review criteria such as 10 CFR 50.54(q) review.
2. Activities-Changes may range from something as simple as making an editorial change or organization change to complicated facility modifications.
3. For the purposes of 10 CFR 50.54(q) activitieschanges, such as road closings or population increases, within the community should be considered for its effect impact on the emergency plan when appropriate.
4. ~~Activities may be identified by the applicability determination process provided by 10 CFR 50.59 (c) 4 or through another process.~~

- **Approved Emergency Plan:** ~~The approved plan is the one reviewed by NRC that received unconditional NRC approval for the issuance or continuance of an operating license.~~

DISCUSSION:

1. The initial/original NRC approved emergency plan for the issuance of an operating license.;
 2. The initial/original NRC approved emergency plan -that has been maintained in accordance with 10 CFR 50.54(q) and submitted in accordance with 10 CFR 50.4.
- ~~**Change:** For the purposes of this document and documents related to or resulting from this document, change is defined as: A result of an activity that, through revision of the emergency plan, adds, modifies or deletes an obligation or commitment that implements the standards of 10 CFR 50.47(b) or requirements of Appendix E and therefore is determined to require evaluation in accordance with 10 CFR 50.54(q).~~

DISCUSSION:

1. A proposed activity that results in a revision to the emergency plan (including EALs) that does not- affect the EALs, 10 CFR 50.47(b) planning standards, or App E requirements can be implemented via the screening criteria in Section 5.
2. A DIE evaluation is required to determine if an activity-change affects the EALs, 10 CFR 50.47(b) planning standards, or App E requirements and the results of that evaluation determines if NRC approval is needed.

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- **Commitment EP Requirement:** ~~Regulatory Commitment means an explicit statement a statement made in the emergency plan, which is a mandated licensing basis document, that addresses how a particular regulatory requirement will be met. All EP requirements are subject to the 10 CFR 50.54(q) change process, to take a specific action agreed to or volunteered by a licensee that has been submitted in writing on the docket to the NRC (as defined in NEI 99-04, revision 0). Commitments contained in the emergency plan are reviewed and evaluated in accordance with licensee procedures and 10 CFR 50.54(q) as described in this NEI guidance.~~
- **Effectiveness:** The ability of an emergency plan, as written, to meet the requirements of 10 CFR 50.47(b), Appendix E to 10 CFR Part 50, and thus adequately protect the health and safety of the public.
- **Decrease in Effectiveness:** A change to the emergency plan, that if implemented, would not meet the requirements of 10 CFR 50.47(Bb) and Appendix E to 10 CFR Part 50. The change to the emergency plan, if implemented, would result in ~~a decreased-function, the capability to perform the function being degraded or lost or the timeliness to perform the function being relaxed or no longer existing~~ timeliness of the requirement and, therefore ~~may~~ reduce the ability to protect the health and safety of the public.
- **Lower tier document:** A plant procedure that contains relocated emergency plan information (i.e., 10 CFR 50.47(b) or Appendix E requirements) that no longer exists in the emergency plan.
- **Planning Standard:** Any of the sixteen Emergency Preparedness Planning Standards defined in 10 CFR 50.47(b) and related sections of Appendix E to 10 CFR Part 50.
- **Risk Significant Planning Standard:** Any of the four Planning Standards defined in 10 CFR 50.47(b): 10 CFR 50.47(b)(4), (5), (9), and (10), including the related sections of Appendix E to 10 CFR Part 50.
- **NRC Prior Approval:** A change to the emergency plan (including Emergency Action Levels (EAL)) that has been submitted to NRC for approval before the plan or EAL change can be implemented.

5. 10 CFR 50.54(q) EVALUATION GUIDELINES

The 10 CFR 50.54(q) evaluation guidelines have been provided and are reflected in Attachment 1. There are six steps defined that outline the process to evaluate proposed activities and the impact on the Emergency Plan. ***Attachment 1 is intended to be used to document the review.*** Attachment 1 includes a mechanism to document the review of the following:

- 10 CFR 50.47 (b) [Planning Standards]
- 10 CFR 50 Appendix E Overview
- 10 CFR 50.54 (q)

Step 1: Describe the proposed change(s) to the Emergency Plan

The description should consist of a concise summary of the proposed ~~activity~~ change, and a brief statement that explains why the changes are being made. The description should also identify the section(s) of the emergency plan that is (are) being revised as well as any references that are pertinent to the understanding and or acceptability of the screen and or evaluation. For editorial changes it is acceptable to state in this

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section that the change is editorial in nature and will continue to meet the standards in steps 2 & 3. To determine if the change is editorial in nature use the site-specific guidance specified for a procedure editorial change.

Step 2: Perform a review of the 50.47(b) planning standards

In order to determine if a proposed change has resulted in a ~~reduction~~ decrease in effectiveness, it is necessary to ~~review the change and implications of~~ determine if the change results in a degraded or loss of the capability to perform the function and/or if the timeliness to perform the function is relaxed or no longer exists.

~~against the subject areas defined in 10 CFR 50.47(b) (see Attachment 2 for additional input on each planning standard).~~ Each planning standard should be reviewed and a decision made as to ~~whether~~ whether they it is affected continue to be met.

Documentation to support both yes and no answers should be provided. More detailed documentation of yes answers should be provided. Several of the areas delineated in 10 CFR 50.47(b) have been identified as risk significant planning standards in NRC Inspection Manual MC 0609, Appendix B, "Emergency Preparedness Significance Determination Process."

Step 3: Perform a review of Appendix E

In order to determine if a proposed change has resulted in a decrease in effectiveness, it is necessary to determine if the change results in a degraded or loss of the capability to perform the function and/or if the timeliness to perform the function is relaxed or no longer exists.

~~Just as it is necessary to evaluate the proposed change against 10 CFR 50.47(b) to determine if a reduction in effectiveness has occurred,~~ It is also necessary to evaluate the change to determine if the against the eight criteria in 10 CFR 50 Appendix E are still met. Documentation to support both yes and no answers should be provided. More detailed documentation of yes answers should be supplied in the comments section.

Step 4: Describe the effect of the proposed change(s) on the effectiveness of the emergency plan

Steps 1 through 3 provide the foundation for Step 4. In this section the data documented in steps 2 and 3 are compared against four criteria that will provide reasonable assurance that the effectiveness of the emergency plan has or has not been ~~reduced~~ decreased.

If the affected section of the plan or lower tier document does not implement a planning standard or the requirements of Appendix E (refer to Part 3) then determine if the section was added to the plan based on a written commitment to the NRC (use the commitment data base and assistance from plant regulatory departments to determine if there are any commitments).

If the section of the plan or lower tier document does not implement a planning standard, ~~the requirements of Appendix E,~~ or is not a commitment to the NRC then state in this section that "*information in the section of the plan was provided as supplemental information for the purpose of providing clarification and therefore changes to the section do not ~~reduce~~ decrease the effectiveness of the plan*". In addition, provide a synopsis of historical information relative to the proposed change.

If the section of the plan or lower tier document does implement a planning standard or the requirements of Appendix E to 10 CFR 50, determine if the change decreases the effectiveness of the plan by the following:

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- o If the change still implements the planning standard utilizing a different method then document the new method and state *why* the change does not decrease the effectiveness of the plan
- o Does the capability/timeliness still exist to conduct this function (See step 2 or 3)
- o If a parameter was changed then state *why* changed and that the change is not a decrease in the effectiveness of the plan
- o If an instrument/tool type was substituted and the instrument still performs the same function, then state *why* the instrument/tool still performs the same function the change does not alter/decrease the effectiveness of the plan

~~The planning standards set baseline minimum levels for planning purposes. In some cases, the Emergency Plan exceeds those baseline levels. When considering a change, consider the impact on timeliness and function or ability to perform a function, and not on the minor details necessary to do so. If the plan exceeds the baseline standard and a reduction is proposed, also determine if a commitment was made to the NRC (other than the plan) where the licensee committed to a baseline that was greater than the planning standard. If so, consultation with the plant's regulatory department is required for the change (prior approval of the change may be required — see section 6 of this guidance). If no commitment to the NRC was made, state how the section that is changing exceeds the baseline planning standards and make a determination under the provisions of 10 CFR 50.54(q) whether the change does or does not decrease the effectiveness of the plan~~

Step 5

Step 5 provides an opportunity to further establish whether the change continues to meet 10 CFR 50.47(b) and Appendix E through justification of the acceptability of the change (i.e., the how and why). A summary of the review performed to this point is established. Reasonable assurance that documentation, providing insight into the bases for the emergency plan, are also examined. Affected planning standards should be identified here and annotated if they are risk significant. If, in this step it is determined that the planning standards are not met, the change should either be altered to allow the standards to be met or NRC approval should be sought.

Step 6

The final step is to provide the overall conclusion that the change either does or does not decrease the effectiveness of the plan. In addition, step 6 documents who performed and reviewed the evaluation.

6. NRC PRIOR APPROVAL

The need for NRC prior approval, as defined in Section 4, is delineated in the attached flow chart (Attachment 3) based on the results of Section 5 (Attachment 1).

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7. REFERENCES

Title 10, Code of Federal Regulations, Section 50, paragraph 47(b).

Title 10, Code of Federal Regulations, Section 50, Appendix E, Section IV.

Title 10, Code of Federal Regulations, Section 50, paragraph 54(q).

EPPOS 4: "EMERGENCY PREPAREDNESS POSITION (EPPOS¹) ON EMERGENCY PLAN AND IMPLEMENTING PROCEDURE CHANGES," dated November 1998

RIS 2003-18 NRC REGULATORY ISSUE SUMMARY 2003-18 USE OF NEI 99-01, "METHODOLOGY FOR DEVELOPMENT OF EMERGENCY ACTION LEVELS,"

FSAR

NRC Inspection Manual MC 0609, Appendix B, "Emergency Preparedness Significance Determination Process," dated 03/06/03

NRC Letter to licensees on emergency preparedness

NUREG-0694, "TMI-Related Requirements for New Operating Licenses"

NUREG-0737, "Clarification of TMI Action Plan Requirements"

NUREG-0696, "Criteria for Emergency Planning Facilities"

NUREG-0654, Rev. 1 "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants"

NUREG-0818, DRAFT, "Emergency Action Levels for Light Water Reactors"

EPA 400-R-92-001, "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents"

10 CFR 100, "Reactor Site Criteria"

FEMA REP-10, "Guide for the Evaluation of Alert and Notification Systems for Nuclear Power Plants"

~~NEI 96-07, "Guidelines for 10CFR 50.59 Implementation"~~

NEI 99-01, "Methodology for development of Emergency Action Levels"

NEI 99-02, "Regulatory Assessment Performance Indicator Guideline"

NEI 98-03, "Guidelines for Updating Final Safety Analysis Reports"

~~NEI 99-04, "Guidelines for Managing NRC Commitment Changes"~~

Proposed Rule, Emergency Planning and Preparedness for Production and Utilization Facilities (68 Fed. Reg. 43673, July 24, 2003) to amend 10 CFR Part 50 Appendix E.IV regarding NRC approval of licensee changes to Emergency Action Levels (EAL) and exercise requirements for co-located licensees

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ATTACHMENT 1
10 CFR 50.54(q) Evaluation Process

Instructions:

The following is guidance on performing 10 CFR 50.54(q) evaluations as part of licensee input to plant specific safety evaluation processes. All steps must be completed if a "yes" answer is documented to any part of Step 2 or 3. If Step 2 and 3 are all answered "no", document and complete Step 5 and 6.

Step 1 – Describe the proposed change to the emergency plan

Step 2 – Perform a review of the 10 CFR 50.47(b) planning standards

Step 3 – Perform a review of Appendix E

Step 4 – Describe the effect of the proposed change(s) on the effectiveness of the emergency plan

Step 5 – Describe if and how the revised emergency plan will continue to meet the standards of 10CFR50.47(b) and the requirements of Appendix E to 10CFR50.

Step 6 - Conclusion and approval

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10 CFR 50.54(q) Evaluation Process

| Step 1 - Describe the proposed change(s) to the Emergency Plan | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Action | Result |
| Identify the emergency plan section (or lower tier document) | |
| Describe the change | |
| For editorial changes it is acceptable to state in this section that the change is editorial in nature and will continue to meet the <u>standards and requirements</u> in steps 2 & 3. To determine if the change is editorial in nature use the site specific guidance specified for a procedure editorial change. | |
| Reference(s) (e.g., plant tracking document or corrective action program report) | |

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Step 2 - Perform a review of the 50.47(b) planning standards

| Action | Result |
|--------|--------|
|--------|--------|

Does this activity ~~change~~ affect any of the following subject areas of 10 CFR 50.47(b)?
 SDP 0609B (*Risk Significant Planning Standard)

| | | |
|---------------------------------------------------------------------------------------|------------------------------|-----------------------------|
| 1. Assignment of ERO responsibilities | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 2. Assignment of on-shift ERO personnel | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 3. Arrangement for utilizing State or local resources and staff | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 4.* EALs | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 5.* Notifications to off-site agencies, the ERO or the public | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 6. Communications between off-site agencies, the ERO, or the public | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 7. Dissemination of public information | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 8. Adequacy of emergency facilities and equipment | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 9.* Methods, systems, and equipment for off-site response to a radiological emergency | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 10.* Protective Action Recommendations | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 11. Emergency Worker radiological control | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 12. Medical services for contamination injured personnel | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 13. Re-entry / Recovery plans | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 14. Drills and exercises | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 15. Radiological emergency response training | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 16. Plan development, review and distribution | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

Comments:

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ATTACHMENT 1
10 CFR 50.54(q) Evaluation Process

| Step 3 – Perform a review of Appendix E | | |
|-------------------------------------------------------------------------------------------------------|------------------------------|-----------------------------|
| Action | Result | |
| Does the proposed activity change affect any of the following subject areas of 10 CFR 50, Appendix E? | | |
| (i)(ii)(iii) Emergency plans as described in the FSAR | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| (iv) A. Organization for coping with radiological emergencies | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| (iv) B. Assessment of radiological emergencies | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| (iv) C. Classifications, EALs and ERO activation | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| (iv) D. Notification of Federal, State and local agencies and the public | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| (iv) E. ERFs, equipment, and communications | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| (iv) F. Training, drills, and exercises | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| (iv) G. Plans and procedures and surveillance of equipment and supplies | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| (iv) H. Re-entry and Recovery following an accident | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Comments: | | |

If all answers to Step 2 and Step 3 are "NO", document in Step 5 and 6 and implement change.

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ATTACHMENT 1
10 CFR 50.54(q) Evaluation Process

| Step 4 - Describe the effect of the proposed change(s) on the effectiveness of the emergency plan | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| Action | Results |
| <p>1. If the affected section of the plan or lower tiered document does not implement a planning standard <u>or Appendix E requirement</u>(refer to Attachment 2), then determine if the section was added to the plan based on a written commitment to the NRC (use the commitment data base and assistance from plant regulatory departments to determine if there are any commitments).</p> | |
| <p>2. If the section of the plan or lower tiered document does not implement a planning standard, <u>or Appendix E requirement</u>, or is not a commitment to the NRC, then state in this section that "<i>information in the section of the plan was provided as supplemental information for the purpose of providing clarification and therefore changes to the section do not decrease the effectiveness of the plan</i>". In addition, provide a synopsis of historical information relative to the proposed change.</p> | |
| <p>3. If the section of the plan or lower tiered document does implement a planning standard, determine if the change decreases the effectiveness of the plan by the following:</p> | |
| <p>a) If the change still implements the planning standard utilizing a different method, then document the new method and state why the change does not decrease the effectiveness of the plan.</p> | |
| <p>b) Is the capability lost or degraded or the timeliness relaxed or does not exist to conduct this function? Does the capability still exist to conduct this function?</p> | |
| <p><u>e)b) If a parameter was changed, then state why the change is not a decrease in the effectiveness of the plan</u></p> | |

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ATTACHMENT 1

10 CFR 50.54(q) Evaluation Process

| Step 4 - Describe the effect of the proposed change(s) on the effectiveness of the emergency plan | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| Action | Results |
| <p>d)c If an instrument/tool type was substituted and the instrument still performs the same function, then state why the instrument/tool still performs the same function. If the instrument/tool still performs the same function then the change does not alter <u>decrease</u> the effectiveness of the plan.</p> | |
| <p>e) If no commitment to the NRC was made, state how the section that is changing exceeds the baseline planning standards and make a determination under the provisions of 10 CFR 50.54(q) whether the change does or does not decrease the effectiveness of the plan. The planning standards set baseline minimum levels for planning purposes. In some cases the emergency plan exceeds those baseline levels. When considering a change, consider the impact on timeliness and function or ability to perform a function, and not on the minor details necessary to do so. If the plan exceeds the baseline standard and a reduction is proposed, then determine if a commitment was made to the NRC (other than the plan) where the licensee committed to a baseline that was greater than the planning standard. If so, consultation with the plant's regulatory department is required for the change (prior approval of the change may be required — see section 6 of this guidance).</p> | |

10 CFR 50.54(q) Guidance

ATTACHMENT 1

10 CFR 50.54(q) Evaluation Process

| Step 5 - Describe if and how the revised emergency plan will continue to meet the standards of 10 CFR 50.47(b) and the requirements of Appendix E to 10 CFR50. | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| Action | Results |
| Based on steps 2 and 3, document the results of how the revised emergency plan, or lower tier document, will continue to meet the standards of 10 CFR 50.47(b) and requirements of Appendix E. | |
| Determine what planning standards (PS) are affected by the change from the above documents. | List Planning Standards |
| Is a risk significant (RS) PS affected? (4, 5, 9 or 10) | <input type="checkbox"/> Yes <input type="checkbox"/> No |

10 CFR 50.54(q) Guidance

ATTACHMENT 2

10CFR50.47(b) Planning Standards Overview

10CFR 50.47 (b) (1) responsibilities & staffing

- Primary responsibilities have been assigned for emergency response by
- Nuclear facility licensee
- State and local organizations within the Emergency Planning Zones
- Emergency responsibilities of the various supporting organizations have been specifically established.
- Each principal response organization has staff to respond and to augment its initial response on a continuous basis.

10CFR 50.47 (b) (2) on-shift responsibilities & timely augmentation

- On-shift responsibilities for emergency response are unambiguously defined.
- Adequate staffing to provide initial facility accident response in key functional areas is maintained at all times.
- Timely augmentation of response capabilities is available.
- The interfaces among various onsite response activities and offsite support and response activities are specified.

10CFR 50.47 (b) (3) assistance & augmentation

- Arrangements for requesting and effectively using assistance resources have been made,
- arrangements to accommodate State and local staff at the licensee's near-site Emergency Operations Facility have been made,
- other organizations capable of augmenting the planned response have been identified.

10CFR 50.47 (b) (4) emergency classification and action level scheme

- A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee,
- and State and local response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures.

10CFR 50.47 (b) (5) notification procedures

- Procedures have been established for notification, by the licensee, of
- State and local response organizations
- Emergency personnel by all organizations;
- The content of initial and follow-up messages to response organizations and the public has been established;
- Means to provide early notification and clear instruction to the populace within the plume exposure pathway Emergency Planning Zone.

10CFR 50.47 (b) (6) Communications Provisions

- Provisions exist for prompt communications among principal response organizations to emergency personnel and to the public.

10CFR 50.47 (b) (7) Public Information

- Public education materials provided periodically to the public

10 CFR 50.54(q) Guidance

ATTACHMENT 2

10CFR50.47(b) Planning Standards Overview

10CFR 50.47 (b) (8) emergency facilities and equipment

- Adequate emergency facilities and equipment to support emergency response
- Procedures and drawings shall be distributed and controlled within the ERFs in accordance with licensee procedures

10CFR 50.47 (b) (9) radiological assessment methods, systems, and equipment

- Adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use.

10CFR 50.47 (b) (10) protective actions

- A range of protective actions has been developed for the plume exposure pathway EPZ for emergency workers and the public. In developing this range of actions, consideration has been given to evacuation, sheltering, and, as a supplement to these, the prophylactic use of potassium iodide (KI), as appropriate,
- Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and
- Protective actions for the ingestion exposure pathway EPZ appropriate to the locale have been developed.

10CFR 50.47 (b) (11) radiological exposure control & protective action guides.

- Means for controlling radiological exposures, in an emergency, are established for emergency workers.
- The means for controlling radiological exposures shall include exposure guidelines consistent with EPA Emergency Worker and Lifesaving Activity Protective Action Guides.

10CFR 50.47 (b) (12) medical services

- Arrangements are made for medical services for contaminated injured individuals.

10CFR 50.47 (b) (13) recovery and reentry plans

- General plans for recovery and reentry are developed.

10CFR 50.47 (b) (14) drills & exercises

- Periodic exercises are conducted to evaluate emergency response capabilities,
- Periodic drills are conducted to develop and maintain key skills.
- Deficiencies identified as a result of exercises or drills are corrected.

10CFR 50.47 (b) (15) emergency response training

- Training is provided to those who may be called on to assist in an emergency.

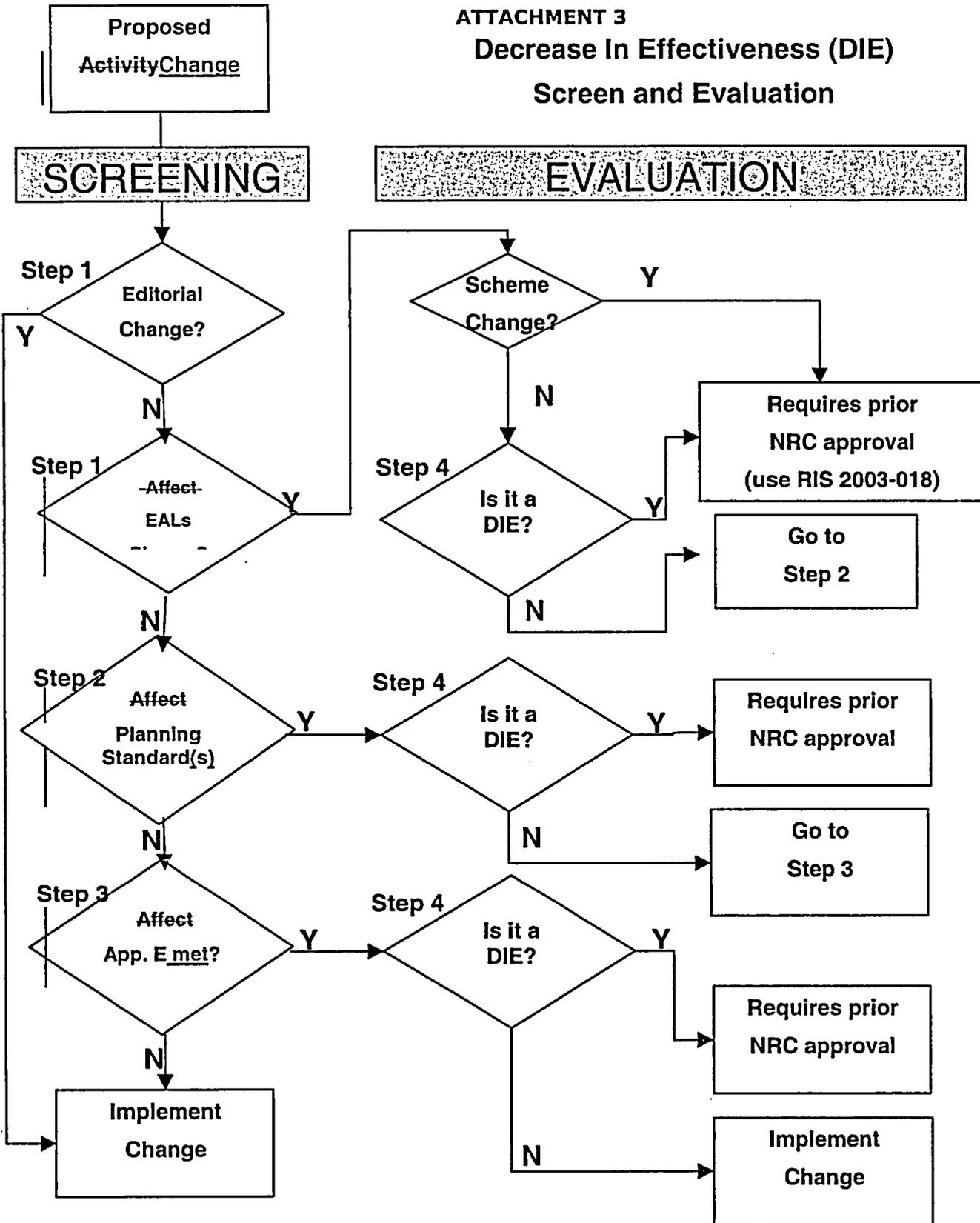
10CFR 50.47 (b) (16) emergency response planner Responsibilities & training

- Responsibilities for plan development, review, and distribution are established.
- Planners are properly trained

ATTACHMENT 3

Decrease In Effectiveness (DIE)

Screen and Evaluation



November 23, 2004

Mr. Alan Nelson
Chief, Emergency Preparedness
Regulatory Affairs
1776 I Street NW, Suite 400
Washington, D.C. 20006-3708

Dear Mr. Nelson:

On September 27, 2004, we received Nuclear Energy Institute's (NEI's) revised Position Paper titled, "Range of Protective Actions for Nuclear Power Plant Accidents." The Nuclear Regulatory Commission (NRC) appreciates NEI's responsiveness to our informal comments and understands that NEI would like NRC to endorse the Position Paper. The NRC also understands the magnitude and importance of the need for clear, concise, and informative guidance regarding protective action recommendations.

The NRC staff has reviewed the revised Position Paper and notes that many of the concerns the staff raised during telephone conversations on September 23 and 24, 2004, have been addressed by NEI. Nevertheless, there are remaining concerns that need to be addressed. The staff's comments are provided in Enclosure 1, "Major Comments" and Enclosure 2, "Minor Comments." We look forward to reviewing the revision to the Position Paper. If you have any questions or comments please contact Robert Moody of my staff at (301) 415-1737.

Sincerely,

/RA/

Nader L. Mamish, Director
Emergency Preparedness Directorate
Division of Preparedness and Response
Office of Nuclear Security and Incident Response

Major Comments

Section 1.0, "Purpose"

For completeness, this section needs to state that protective action recommendations (PARs) may also need to be made by the licensee in the "intermediate phase" and the "late phase" of an emergency. Also, to be consistent with Regulatory Information Summary (RIS) 2003-12, "Clarification of NRC Guidance for Modifying Protective Actions," licensees are not to relax protective actions until the source of the threat is clearly under control.

In addition, even though PARs for the ingestion pathway are excluded from the Position Paper, 10 CFR 50.47(b)(10) also addresses a range of PARs for emergency workers. For the Position Paper to be endorsed as one way to meet the requirements of 10 CFR 50.47(b)(10), it needs to include PARs for emergency workers or state that emergency workers are excluded.

Section 2.2.1, "EPA 400"

The NRC will not endorse those portions of the Position Paper that contain comments related to perceived weaknesses in EPA 400. The third sentence of the first paragraph states in part "[EPA 400] did not utilize terminology germane to nuclear power plant licensees..., nor did it provide specific guidance on how to use the diverse implementation concepts it contained." However, EPA 400, Section 5.2.2, "Immediate Protective Action" refers the reader to NUREG-0654 for guidance related to implementation of immediate protective actions for incidents at commercial nuclear plants. Therefore the third sentence of the first paragraph should be revised to reflect the reference of NUREG-0654. Currently, EPA 400 is undergoing revision and now is the appropriate time to provide comments related to EPA 400 to the Environmental Protection Agency.

Issue 1: Evacuation Triggers

The "...five mile downwind..." provision is meaningful only if the wind direction at the time of the release is not expected to change for the duration of the release. For a projected release that is predicted to start more than approximately one hour in the future, and especially for releases that are projected to occur during a meteorological change, such as diurnal wind shifts, passage of a front, etc., it may be prudent to evacuate a five mile radius around the plant as the initial or "minimum" recommendation. Therefore, Section 2.3.1 needs to include the perspective that the initial minimum recommendation may need to be greater than approximately a two-mile radius and the five-mile downwind sectors.

Also, the second sentence in the Industry Position needs to be revised for completeness to read: "Considerations for revising or adjusting the initial recommendation are to be based on additional plant information, dose projections, field monitoring results, and projected changes in meteorological conditions."

Issue 3: "Use of Sheltering as an Alternative to Evacuation for Short-term Releases"

To be consistent with RIS 2004-13, "Consideration of Sheltering in Licensee's Range of Protective Action Recommendations," the first sentence in Industry Position 3 needs to be revised to read: "A licensee's emergency plans, procedures, and notification forms need to include the consideration of sheltering consistent with Federal guidance."

The last sentence in Industry Position 3 states that licensees will typically recommend evacuation, but will incorporate a proviso that the use of sheltering as an alternative is a State or local decision. The use of the word "will " indicates that the licensee is required to "typically recommend evacuation" and "incorporate a proviso that the use of sheltering as an alternative is a State or local decision." Since the first sentences of Issue 3 communicate the issue clearly, delete the last sentence of Issue 3 or replace the words, "will typically recommend evacuation as dictated by the guidance" with "may recommend evacuation."

Issue 4: "Effectiveness of Sheltering"

RIS 2004-13 states that even if the licensee has established an understanding with State and local authorities not to recommend a sheltering PAR, 10 CFR 50.47(b)(10) still requires that sheltering be considered in developing the range of PARs in the licensee's emergency plan, emergency plan implementing procedures, and notification forms. This information from the RIS needs to be included in the issue.

Section 3.0, "Conclusion"

The third sentence in the first paragraph and the three bullets that follow need to be deleted, since the context is inconsistent with federal regulations and guidance. Evacuation and sheltering are considered differently from KI under 10 CFR 50.47(b)(10). A licensee's emergency plan, implementing procedures, and notification forms need to include the consideration of evacuation and sheltering consistent with federal guidance; whereas, a licensee should discuss the use of KI as a protective measure for the public with State and local agencies in the development of the licensee's emergency plan.

The following information also needs to be added: "In addition to using plant conditions, dose projections, and field monitoring results, as the basis for making PARs, licensees also need to consider very dangerous travel conditions and the need for transit-dependent persons to remain indoors until transportation resources arrive, if possible." This guidance is found in notes 3 and 4 to Figure 1 in Supplement 3 to NUREG-0654, and also in EPA 400 that discusses the use of sheltering in the event travel conditions are hazardous.

Minor Comments

Section 1.0 "Purpose":

- a. Since the primary purpose of PARs is dose savings, as opposed to dose prevention, this fundamental philosophy needs to be included for a more complete perspective.

Section 2.2 "Current Guidance":

- a. Add "and generic misinterpretations of the requirements of 10 CFR 50.47(b)(10) " after "guidance" in the second sentence of the second paragraph. A generic misinterpretation of the requirements of 10 CFR 50.47(b)(10) by the industry and NRC representatives was the reason the NRC issued RIS 2004-13, "Consideration of Sheltering in Licensee's Range of Protective Action Recommendations."

Section 2.2.1, "EPA 400":

- a. Although the source of definitions for "evacuation" and "sheltering" have been discussed in the past with the staff, use the definitions in Appendix A, "Glossary" of EPA 400 for these terms.
- b. The third paragraph of Section 2.2.1 addresses some of the pitfalls associated with sheltering, but excludes EPA 400 guidance related to when sheltering may be more beneficial than evacuation. EPA 400 provides extensive guidance on when sheltering should be used. For example, Chapter 5 "Implementing the Protective Action Guides for the Early Phase" of EPA 400 provides extensive guidance. Add guidance from Chapter 5 of EPA 400 that addresses when sheltering may be more beneficial than evacuation.
- c. The next to the last sentence is taken out-of-context. The following complete sentence from EPA 400 needs to be included: "...Reliance on large dose reduction factors for sheltering should be accompanied by cautious examination of possible failure mechanisms, and, except in very unusual circumstances, should not be relied upon at projected doses greater than 10 rem."

Section 2.2.2 "NUREG-0654, Supplement 3":

- a. In Section 1.0, "Purpose," of the Position Paper the second to the last sentence states that existing guidance will be used, yet in this section, the last two sentences address guidance related to evacuation of a 5-10 mile downwind sector from Appendix 1 to NUREG-0654 that was revised in Supplement 3 to NUREG-0654. Therefore, these two sentences need to be removed.
- b. Add to this Section that Supplement 3 also states that as additional plant and field monitoring information becomes available, the recommendation to evacuate a two-mile radius and the 5-mile downwind sectors may need to be adjusted.
- c. Advising people to remain indoors to monitor EAS broadcasts is not a new concept. The first sentence of this Section needs to be removed. EPA 400, which preceded Supplement 3 to NUREG-0654, states on page 2-7, "No specific minimum level is

established for initiation of sheltering. ... It can also be particularly useful to assure that a population is positioned so that, if the need arises, communication with the population can be carried out expeditiously. For the above reasons, planners and decision makers should consider implementing sheltering at projected doses below 1 rem..."

Section 2.2.4, "Summary of Requirements and Guidance"

The last sentence of Section 1, "Purpose" states that the intent of the Position Paper is not to provide implementation instructions for protective actions for the public, yet Table 1 in Section 2.2.4, "Summary of Requirements and Guidance" has provisions for when and how to implement protective actions. In addition, Table 1 is incomplete, it does not reference current federal Food and Drug Administration guidance related to KI, and appears to be of limited value, and therefore needs to be deleted.

Section 2.3.1, "Evacuation"

- a. Since the EPA 400 dose numbers are actually "decision points" rather than "triggers," the title for Issue 1 should be "Evacuation Decision Points."
- b. The first sentence discusses the use of EPA 400 dose limits as a trigger for evacuation. EPA dose numbers are not limits, rather they are decision points. Therefore, the words "dose limits" should be replaced with "radiation dose."
- c. In the second paragraph, the word "indoos" should be changed to "indoors."

Section 3.0, "Conclusion"

The last sentence needs to be deleted, since the term "heightened awareness" has not been defined in our regulations or guidance.